

ADDING VALUE TO ARM PRECIPITATION RADAR MEASUREMENTS

Scott Collis, *Argonne National Laboratory*
Nitin Bharadwaj, *Pacific Northwest National Laboratory*
Kevin Widener, *Pacific Northwest National Laboratory*
Scott Giangrande, *Brookhaven National Laboratory*

For presentation at
The Second Science Team Meeting of the
Atmospheric System Research (ASR) Program,
San Antonio, TX
March 28-April 1, 2011

**Environmental Sciences Department/Atmospheric Sciences Division
Brookhaven National Laboratory**

**U.S. Department of Energy
Office of Science**

ABSTRACT

The procurement of a network of C- and X-band scanning radars has lead to a flow of specialized measurements, which need value-adding to be of use to a wider cross-section of the ASR and broader modeling community. This presentation will outline the plans and systems being implemented in order to retrieve geophysical parameters from multiple sensors in a three-dimensional domain over the ARM sites. A particular focus will be on parameters highlighted in recent white papers by the Science and Infrastructure Steering Committee, specifically vertical velocity and quantitative precipitation estimates. Example algorithms will be highlighted and first results presented.

NOTICE: This manuscript has been authored by employees of Brookhaven Science Associates, LLC under Contract No. DE-AC02-98CH10886 with the U.S. Department of Energy. The publisher by accepting the manuscript for publication acknowledges that the United States Government retains a non-exclusive, paid-up, irrevocable, world-wide license to publish or reproduce the published form of this manuscript, or allow others to do so, for United States Government purposes.